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NOTICE OF ALLOWANCE AND FEE(S) DUE

22852 7590 06/26/2009

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER	
CHARIOUI, MOHAMED	
ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 06/26/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,942	08/21/2003	Yasuo Isumi	GY0310US	1297

TITLE OF INVENTION: PASS/FAIL JUDGMENT DEVICE, PASS/FAIL JUDGMENT PROGRAM, PASS/FAIL JUDGMENT METHOD, AND MULTIVARIATE STATISTICS ANALYZER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	09/28/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22852 7590 06/26/2009

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,942	08/21/2003	Yasuo Isumi	GY0310US	1297

TITLE OF INVENTION: PASS/FAIL JUDGMENT DEVICE, PASS/FAIL JUDGMENT PROGRAM, PASS/FAIL JUDGMENT METHOD, AND MULTIVARIATE STATISTICS ANALYZER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	09/28/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHARIOUI, MOHAMED	2857	702-179000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:
- ❑ Issue Fee
- ❑ Publication Fee (No small entity discount permitted)
- ❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ❑ A check is enclosed.
- ❑ Payment by credit card. Form PTO-2038 is attached.
- ❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ❑ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- ❑ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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EXAMINER	
CHARIOUI, MOHAMED	
ART UNIT	PAPER NUMBER
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DATE MAILED: 06/26/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 33 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 33 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

Notice of Allowability	Application No.	Applicant(s)	
	10/646,942	ISUMI ET AL.	
	Examiner	Art Unit	
	MOHAMED CHARIOUI	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *2/13/09*.

2. ☒ The allowed claim(s) is/are *1-38, renumbered*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 5/20/09 has been entered.

Allowable Subject Matter

2. **Claims 1-38** are allowed.

3. **Claims 1-38** are renumbered.

4. The following is an examiner's statement of reasons for allowance:

Claim 1 is allowed because the closest prior art, Okumura et al. (U.S. Pub. No. 2003/0043939) fails to anticipate or render obvious a pass/fail judgment device which takes the form of pass/fail objects as a pass/fail judgment factor, and which is used to detect a defective unit in product inspection, including a statistical parameter computing unit for computing a center of distribution and distribution parameters that vary in accordance with a breadth of a distribution for said variables with respect to either or both of said pass category and said fail category; a threshold determining unit for determining a threshold for providing a pass/fail judgment based on the value of a variable and giving a specific distribution probability that is based on at least one of a rate of flowout in the fail category, which represents a number of pass/fail judgment

objects that are actually in the fail category and that are judged as ~ passed, and a rate of overcontrol in the pass category, which represents a number of pass/fail judgment objects that are actually in the pass category and that are judged as being failed, relative to said center of distribution and said distribution parameters; a parameter information acquiring unit for acquiring a plurality of pieces of parameter information on one or more pass/fail judgment objects according to data of a normal distribution; and a pass/fail judging unit for comparing the value of variables obtained by substituting the parameter information into said discriminant function with said threshold and for thereby providing a pass/fail judgment for the one or more pass/fail judgment objects; wherein the overcontrol and flowout are separated having the normal distribution, wherein the overcontrol and flowout are judged based on the data of the normal distribution, in combination with the rest of the claim limitations as claimed and defined by the Applicant.

Claim 11 is allowed because the closest prior art, Okumura et al. (U.S. Pub. No. 2003/0043939) fails to anticipate or render obvious a pass/fail judgment method taking the form of pass/fail objects as a pass/fail judgment factor for detecting a defective unit in product inspection, the method including computing with the microprocessor a center of distribution and distribution parameters that vary with a breadth of a distribution for said variables with respect to either or both of said pass category and said fail category; determining a threshold for providing a pass/fail judgment based on the value of a variable value and giving a specific distribution probability based on at least one of a rate of flowout in the fail category, which represents a number of pass/fail judgment

objects that are actually in the fail category that are judged as being passed, and a rate of overcontrol in the pass category, which represents a number of pass/fail judgment objects that are actually in the pass category that are judged as being failed, relative to said center of distribution and said distribution parameters; acquiring a plurality of pieces of said parameter information on one or more pass/fail judgment objects according to data of a normal distribution; and comparing the value of variables obtained by substituting the parameter information into said discriminant functions with said threshold; and displaying a pass/fail judgment for the one or more pass/fail judgment objects based on the comparing step; wherein the rate of overcontrol and flowout are separated having the normal distribution; and wherein the pass/fail judgment are judged based on the normal distribution, in combination with the rest of the claim limitations as claimed and defined by the Applicant.

Claim 12 is allowed because the closest prior art, Okumura et al. (U.S. Pub. No. 2003/0043939) fails to anticipate or render obvious a pass/fail judgment method taking the form of pass/fail objects as a pass/fail judgment factor for detecting a defective unit in product inspection, the method including a threshold determining step for determining a threshold for providing a pass/fail judgment based on a value of a variable representing a specific distribution probability based on at least one of a rate of flowout in the fail category, which represents a number of pass/fail judgment objects that are actually in the fail category, and that are judged as being passed, and a rate of overcontrol in the pass category, which represents a number of pass/fail judgment objects that are actually in the pass category, and that are judged as being failed,

relative to said center of distribution and said distribution parameters; and a pass/fail judging step in which the value of variables obtained by substituting the parameter information into said discriminant functions are compared with said threshold, and a pass/fail judgment for the one or more pass/fail judgment objects is displayed based on the comparison with said threshold; wherein the rate of overcontrol and flowout are separated having the normal distribution; and wherein the pass/fail judging step is judged based on the normal distribution, in combination with the rest of the claim limitations as claimed and defined by the Applicant.

Claim 13 is allowed because the closest prior art, Okumura et al. (U.S. Pub. No. 2003/0043939) fails to anticipate or render obvious a multivariate statistics analyzer which is capable of communication of data with the outside through a communication interface and executes a multivariate analysis program under the control of a predetermined operating system including a discriminant function computing portion which eliminates multicolinearity, gives variables used to separate frequency distributions of a pass category and a fail category from a plurality of pieces of information which make pass/fail judgment factors and pass/fail judgment result information, wherein each of the frequency distributions of the pass category and the fail category has a shape of a normal distribution, and further computes discriminant functions based on said parameter value data; a statistical parameter computing portion which computes a center of distribution parameters and that vary in accordance with a breadth of a distribution for variables with respect to either or both of a pass category and a fail category, and the mean and standard deviation in frequency distributions of

said pass category and said fail category with respect to said discriminant functions; and a threshold determining portion for determining a threshold for providing a pass/fail judgment based on the value of a variable defined by a specific distribution probability based on at least one of a rate of flowout in the fail category, which represents a number of pass/fail judgment objects are actually in the fail category, and that are actually judged as being passed, and a rate of overcontrol in the pass category, which represents a number of pass/fail judgment objects that are actually in the pass category, and that are actually judged as being failed, relative to said center of distribution and said distribution parameter, and the threshold determining portion further performs the operations of acquiring said discriminant function data, said parameter value data, and pass/fail judgment result data, generating a histogram corresponding to a pass/fail judgment result on a category-by-category basis, computing a mean and a standard deviation of each category in the generated histogram, determining the threshold of a discriminant function corresponding to a specified rate of flowout which is set for the fail category and indicates the range in which defective units are let out, based on the mean and standard deviation computed in the fail category and the rate of flowout; and a pass/fail judgment display portion configured to display a pass/fail judgment for the one or more pass/fail judgment objects based on the threshold determined by the threshold determining portion; wherein the overcontrol and flowout are separated having the normal distribution; and wherein the overcontrol and flowout are judged based on the data of the normal distribution, in combination with the rest of the claim limitations as claimed and defined by the Applicant.

Claim 18 is allowed because the closest prior art, Okumura et al. (U.S. Pub. No. 2003/0043939) fails to anticipate or render obvious a quality control apparatus which takes the form of pass/fail objects as a pass/fail judgment factor and which is used to detect a defective unit in product inspection, including an input unit configured to receive at least one of a rate of flowout in the second category, which represents a number of objects that actually are in the second category that are actually classified as being in the first category, and a rate of overcontrol in the first category, which represents a number of objects that actually are in the first category that are actually judged as being in the second category; a calculation unit configured to calculate a discriminate function to discriminate between one or more objects classified in the first category from one or more objects classified in the second category based on the at least one of the rate of flowout in the second category and the rate of overcontrol in the first category received by the input unit and based on at least one of the first and second probabilities computed by the statistical computing unit; a judging unit configured to determine whether one or more objects should be classified in one of the first and second categories based on the discriminate function calculated by the calculation unit; and a communication unit configured to communicate whether the object is classified in one of the first and second categories based on the determination of the judging unit; wherein the judging unit has a standard deviation based on a normal distribution of the objects wherein the overcontrol and flowout are separated having the normal distribution; and wherein the overcontrol and flowout are judged based on the data of the normal

distribution, in combination with the rest of the claim limitations as claimed and defined by the Applicant.

Claim 29 is allowed because the closest prior art, Okumura et al. (U.S. Pub. No. 2003/0043939) fails to anticipate or render obvious a computer-implemented quality control method taking the form of pass/fail objects as a pass/fail judgment factor for detecting a defective unit in product inspection, the method including receiving a rate of flowout in the second category, which represents a number of objects that should be classified in the second category, but are actually judged as being classified in the first category relative to said center of distribution and said distribution parameters; receiving an a rate of overcontrol in the first category representing a number of objects that should be classified in the first category, but are actually judged as being classified in the second category relative to said center of distribution and said distribution parameters; calculating a discriminate function to discriminate between one or more objects that should classified in the first category from one or more objects that should be classified in the second category based on the first and second probability distributions computed by the statistical computing unit and based on at least one of the received rate of flowout and the received rate of overcontrol; determining whether one or more objects should be classified in one of the first and second categories based on the discriminate function calculated by the calculation unit; and communicating the determination of whether the one or more objects are classified in one of the first and second categories to an operator; wherein the rate of overcontrol and flowout are separated having a normal distribution; and wherein the overcontrol and flowout are

judged based on the data of the normal distribution, in combination with the rest of the claim limitations as claimed and defined by the Applicant.

Claim 37 is allowed because the closest prior art, Okumura et al. (U.S. Pub. No. 2003/0043939) fails to anticipate or render obvious a computer-implemented quality control apparatus used to detect a defective unit in a product inspection, including an input unit configured to receive a rate of flowout in the defective category, which represents a number of objects that are actually in the defective category by the statistical computing unit, but and that are judged as being non-defective and a rate of overcontrol in the non-defective category, which represents a number of objects that are actually in the non-defective category by the statistical computing unit, and that are judged as being defective, the received rate of flowout and the received rate of overcontrol including a visual observation by an operator of an actual orientation of one component of the object relative to another component of the object; a calculation unit configured to calculate a discriminate function to discriminate between defective and non-defective objects based on the non-defective category and defective object probability distributions computed by the statistical computing unit and based on the feedback data received by the input unit, the discriminate function being different from a midpoint between a mean value of the first probability distribution and a mean value of the second probability distribution wherein each of the frequency distributions of the non-defective category and the defective category has a shape of a normal distribution; a judging unit configured to determine whether the one or more objects should be classified in one of the defective or non-defective categories based on the discriminate

function calculated by the calculation unit; and a display unit configured to display whether the one or more objects are classified in one of the defective or non-defective categories based on the determination of the judging unit; wherein the rate of overcontrol and the rate of flowout are separated having the normal distribution; and wherein the overcontrol and flowout are judged based on the data of the normal distribution, in combination with the rest of the claim limitations as claimed and defined by the Applicant.

Claim 38 is allowed because the closest prior art, Okumura et al. (U.S. Pub. No. 2003/0043939) fails to anticipate or render obvious a computer-implemented quality control method taking the form of pass/fail objects as a pass/fail judgment factor, and used to detect a defective unit in product inspection, the method including receiving an rate of flowout in the defective category, which represents a number of objects that are actually in the defective category, and that are judged as being non-defective, the received rate of flowout including a visual observation by an operator of an actual orientation of one component of the object relative to another component of the object; receiving a rate of overcontrol in the non-defective category, which represents a number of objects that are actually in the non-defective category, and that are actually in the defective category, the received rate of overcontrol including a visual observation by an operator of an actual orientation of one component of the object relative to another component of the object; calculating a discriminate function to discriminate between one or more objects classified in the non-defective category from one or more objects classified in the defective category based on at least one of the received rate of flowout

and the received rate of overcontrol and based on the computed non-defective and defective object probability distributions, the discriminate function being different from a midpoint between a mean value of the computed non-defective object probability distribution and a mean value of the computed defective object probability distribution wherein frequency distributions of the non-defective category and the defective category has a shape of a normal distribution; determining whether one or more objects should be classified in one of the defective or non-defective categories based on the calculated discriminate function; and displaying an image that illustrates whether the one or more objects are classified in one of the defective or non-defective categories based on the determining step wherein the rate of overcontrol and the rate of flowout are separated having a normal distribution; and wherein the overcontrol and flowout are judged based on the data of normal distribution, in combination with the rest of the claim limitations as claimed and defined by the Applicant.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed Charioui whose telephone number is (571) 272-2213. The examiner can normally be reached Monday through Friday, from 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on (571) 272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mohamed Charioui

6/19/09

/Eliseo Ramos-Feliciano/
Supervisory Patent Examiner, Art Unit 2857